



Substitute for form 1449A/PTO				Complete if Known			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	09/834,792		
				Filing Date	April 13, 2001		
				First Named Inventor	Margolskee		
				Art Unit	1647		
				Examiner Name	Sharon L. Turner		
				Attorney Docket Number	34116/1051		
Sheet	1	of	6				
U.S. PATENT DOCUMENTS							
Examiner Initials	Cite No. ¹	U.S. Patent Document Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
JS	1	US-2004/0259160 A1	12/23/2004	Johnson et al.			
	2	US-4,376,110	03/08/1983	David et al.			
	3	US-4,873,191	10/10/1989	Wagner et al.			
	4	US-4,946,778	08/07/1990	Ladner et al.			
	5	US-5,585,089	12/17/1996	Queen et al.			
FOREIGN PATENT DOCUMENTS							
Examiner Initials	Cite No. ¹	Foreign Patent Document Country Code ³ Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶	
JS	6	DE 199 53 167 A1	07/26/2001	Johannes-Gutenberg- Universität Mainz		X	
	7	WO 00/40969	07/13/2000	Sippel et al.		X	
	8	WO 01/32693 A2	05/10/2001	Johannes-Gutenberg- Universität Mainz		X	
	9	WO 01/79448 A2	10/25/2001	Mount Sinai School of Medicine of New York University			
	10	WO 02/054069 A1	07/11/2002	The Regents of the University of California			
	11	WO 02/087306 A2	11/07/2002	Senomyx, Inc.			
	12	WO 02/10382 A2	02/07/2002	Wissenbach, Ulrich			
	13	WO 2004/076632 A2	09/10/2004	The Queen's Medical Center			
	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS						
	Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T ²
	JS	14	Akabas et al., "A Bitter Substance Induces a Rise in Intercellular Calcium in a Subpopulation of Rat Taste Cells," <i>Science</i> 242:1047-1050 (1988)				
		15	Asano-Miyoshi et al., "Co-Expression of Calcium Signaling Components in Vertebrate Taste Bud Cells," <i>Neurosci. Lett.</i> 283:61-64 (2000)				
		16	Ausubel et al., "Current Protocols in Molecular Biology," Vol. 2, Green Publishing Associates, Inc. and John Wiley and Sons, Inc., New York, pp.2.10.2-2.10.3 (1989)				
Examiner Signature	Sharon L. Turner			Date Considered	6-20-05		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.



Information for form 1449B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	09/834,792
				Filing Date	April 13, 2001
				First Named Inventor	Margolskee
				Group Art Unit	1647
				Examiner Name	Sharon L. Turner
Sheet	2	of	6	Attorney Docket Number	34116/1051
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ²
	17	Baxter et al., "A Novel Membrane Potential-Sensitive Fluorescent Dye Improves Cell-Based Assays for Ion Channels," <i>J. Biomol. Screen.</i> 7(1):79-85 (2002)			
	18	Behrendt et al., "Characterization of the Mouse Cold-Menthol Receptor TRPM8 and Vanilloid Receptor Type-1 VR1 Using a Fluorometric Imaging Plate Reader (FLIPR) Assay," <i>Brit. J. Pharmacol.</i> 141(4):737-745 (2004)			
	19	Bernhardt et al., "Changes in IP ₃ and Cytosolic Ca ²⁺ in Response to Sugars and Non-Sugar Sweeteners in Transduction of Sweet Taste in the Rat," <i>J. Physiol.</i> 490.2:325-336 (1996)			
	20	Bird et al., "Single-Chain Antigen-Binding Proteins," <i>Science</i> 242(4877):423-426 (1988)			
	21	Bobanovic et al., "Molecular Cloning and Immunolocalization of a Novel Vertebrate <i>trp</i> Homologue from <i>Xenopus</i> ," <i>Biochem. J.</i> 340:593-599 (1999)			
	22	Bronstein et al., "Chemiluminescent Reporter Gene Assays: Sensitive Detection of the GUS and SEAP Gene Products," <i>Biotechniques</i> 17(1):172-177 (1994)			
	23	Chomczynski & Sacchi, "Single-Step Method of RNA Isolation by Acid Guanidinium Thiocyanate-Phenol-Chloroform Extraction," <i>Anal. Biochem.</i> 162:156-159 (1987)			
	24	Cole et al., "The EBV-Hybridoma Technique and Its Application to Human Lung Cancer," in <i>Monoclonal Antibodies and Cancer Therapy</i> , Alan R. Liss, Inc., pp.77-96 (1985)			
	25	Cote et al., "Generation of Human Monoclonal Antibodies Reactive with Cellular Antigens," <i>Proc. Natl. Acad. Sci. USA</i> 80:2026-2030 (1983)			
	26	Creighton, T.E., "Proteins: Structures and Molecular Principles," W.H. Freeman & Co., New York (1983) (Table of Contents Only)			
	27	Enklaar et al., " <i>Mir1</i> , a Novel Biallelically Expressed Gene in the Center of the Mouse Distal Chromosome 7 Imprinting Cluster, is a Member of the <i>Trp</i> Gene Family," <i>Genomics</i> 67:179-187 (2000)			
28	Falconer et al., "High-Throughput Screening for Ion Channel Modulators," <i>J. Biomol. Screen.</i> 7(5):460-465 (2002)				
29	Filmore, D., "Cell-Based Screening Assays and Structural Studies are Fueling G-Protein Coupled Receptors as One of the Most Popular Classes of Investigational Drug Targets," <i>Modern Drug Discovery</i> pp.24-26, 28 (2004)				
Examiner Signature				Date Considered	6-20-05

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

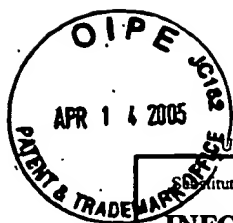
Substitute for form 1449B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	09/834,792
				Filing Date	April 13, 2001
				First Named Inventor	Margolskee
				Group Art Unit	1647
				Examiner Name	Sharon L. Turner
Sheet	3	of	6	Attorney Docket Number	34116/1051

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials [*]	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
86	30	Fleig et al., "Emerging Roles of TRPM Channels," in "Mammalian TRP Channels as Molecular Targets," <i>Novartis Foundation Symposium</i> 258, John Wiley & Sons, Ltd. pp.248-266 (2004)	
	31	GenBank Accession No. AC003693 (September 30, 1998)	
	32	GenBank Accession No. AF177473 (January 20, 2000)	
	33	Gilbertson et al., "The Molecular Physiology of Taste Transduction," <i>Curr. Opin. Neurobiol.</i> 10:519-527 (2000)	
	34	Gill et al., "Flux Assays in High Throughput Screening of Ion Channels in Drug Discovery," <i>Assay and Drug Dev. Tech.</i> 1(5):709-717 (2003)	
	35	Gordon, J.W., "Transgenic Animals," <i>Intl. Rev. Cytol.</i> 115:171-229 (1989)	
	36	Herness, M.S., "Cellular Mechanisms of Taste Transduction," <i>Ann. Rev. Physiol.</i> 61:873-900 (1999)	
	37	Hofmann et al., "TRPM5 is a Voltage-Modulated and Ca ²⁺ -Activated Monovalent Selective Cation Channel," <i>Current Biol.</i> 13:1153-1158 (2003)	
	38	Hoon et al., "Putative Mammalian Taste Receptors: A Class of Taste-Specific GPCRs with Distinct Topographic Selectivity," <i>Cell</i> 96:541-551 (1999)	
	39	Houghten et al., "Generation and Use of Synthetic Peptide Combinatorial Libraries for Basic Research and Drug Discovery," <i>Nature</i> 354:84-86 (1991)	
	40	Huang et al., "Gy13 Colocalizes with Gustducin in Taste Receptor Cells and Mediates IP ₃ Responses to Bitter Denatonium," <i>Nat. Neurosci.</i> 2(12):1055-1062 (1999)	
	41	Huston et al., "Protein Engineering of Antibody Binding Sites: Recovery of Specific Activity in an Anti-Digoxin Single-Chain Fv Analogue Produced in <i>Escherichia coli</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 85:5879-5883 (1988)	

Examiner Signature	<i>Sharon L. Turner</i>	Date Considered	6-20-05
--------------------	-------------------------	-----------------	---------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Institute for form 1449B/PTO		Complete if Known			
		Application Number	09/834,792		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Filing Date	April 13, 2001		
		First Named Inventor	Margolskee		
		Group Art Unit	1647		
		Examiner Name	Sharon L. Turner		
Sheet	4	of	6	Attorney Docket Number	34116/1051

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials [*]	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	42	Kinnamon & Margolskee, "Mechanisms of Taste Transduction," <i>Curr. Opin. Neurobiol.</i> 6(4):506-513 (1996)	
	43	Köhler & Milstein, "Continuous Cultures of Fused Cells Secreting Antibody of Predefined Specificity," <i>Nature</i> 256:495-497 (1975)	
	44	Komuro & Rakic, "In Vitro Analysis of Signal Mechanisms Involved in Neuronal Migration," in L.W. Haynes ed., <i>The Neuron in Tissue Culture</i> , New York: John Wiley & Sons, pp.57-69 (1999)	
	45	Kozbor & Roder, "The Production of Monoclonal Antibodies from Human Lymphocytes," <i>Immunology Today</i> 4(3):72-79 (1983)	
	46	Lakso et al., "Targeted Oncogene Activation by Site-Specific Recombination in Transgenic Mice," <i>Proc. Natl. Acad. Sci. USA</i> 89:6232-6236 (1992)	
	47	Lam et al., "A New Type of Synthetic Peptide Library for Identifying Ligand-Binding Activity," <i>Nature</i> 354:82-84 (1991)	
	48	Lavitrano et al., "Sperm Cells as Vectors for Introducing Foreign DNA into Eggs: Genetic Transformation of Mice," <i>Cell</i> 57:717-723 (1989)	
	49	Lindemann, B., "Receptors and Transduction in Taste," <i>Nature</i> 413:219-225 (2001)	
	50	Lindemann, B., "Taste Reception," <i>Physiological Reviews</i> 76(3):719-766 (1996)	
	51	Liu & Liman, "Intracellular Ca ²⁺ and the Phospholipid PIP ₂ Regulate the Taste Transduction Ion Channel TRPM5," <i>PNAS</i> 100(25):15160-15165 (2003)	
	52	Lo, C.W., "Transformation by Iontophoretic Microinjection of DNA: Multiple Integrations Without Tandem Insertions," <i>Mol. Cell Biol.</i> 3(10):1803-1814 (1983)	
	53	McLaughlin et al., "Gustducin is a Taste-Cell-Specific G Protein Closely Related to the Transducins," <i>Nature</i> 357:563-569 (1992)	
	54	Ming et al., "Blocking Taste Receptor Activation of Gustducin Inhibits Gustatory Responses to Bitter Compounds," <i>Proc. Natl. Acad. Sci. USA</i> 96:9903-9908 (1999)	

Examiner Signature		Date Considered	6-20-05
-----------------------	--	--------------------	---------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

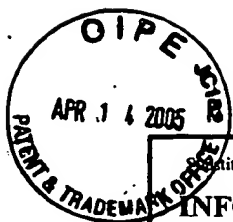
Substitute for form 1449B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	09/834,792
				Filing Date	April 13, 2001
				First Named Inventor	Margolskee
				Group Art Unit	1647
				Examiner Name	Sharon L. Turner
Sheet	5	of	6	Attorney Docket Number	34116/1051

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	55	Ming et al., "Characterization and Solubilization of Bitter-Responsive Receptors That Couple to Gustducin," <i>Proc. Natl. Acad. Sci. USA</i> , 95:8933-8938 (1998)	
	56	Montell, C., "New Light on TRP and TRPL," <i>Mol. Pharmacol.</i> 52:755-763 (1997)	
	57	Morrison et al., "Chimeric Human Antibody Molecules: Mouse Antigen-Binding Domains with Human Constant Region Domains," <i>Proc. Natl. Acad. Sci. USA</i> 81:6851-6855 (1984)	
	58	Neuberger et al., "Recombinant Antibodies Possessing Novel Effector Functions," <i>Nature</i> 312:604-608 (1984)	
	59	Ninomiya et al., "Lack of Gurmardin Sensitivity of Sweet Taste Receptors Innervated by the Glossopharyngeal Nerve in C57BL Mice," <i>Am. J. Physiol.</i> 272(3 Pt 2):R1002-1006 (1997)	
	60	Perez et al., "A Transient Receptor Potential Channel Expressed in Taste Receptor Cells," <i>Nature Neurosci.</i> 5(11):1169-1176 (2002)	
	61	Prawitt et al., "Identification and Characterization of <i>MTR1</i> , A Novel Gene With Homology to Melastatin (<i>MLSN1</i>) and the <i>trp</i> Gene Family Located in the BWS-WT2 Critical Region on Chromosome 11p15.5 and Showing Allele-Specific Expression," <i>Human Molecular Genetics</i> , 9(2):203-216 (2000)	
	62	Ruiz-Avila et al., "Coupling of Bitter Receptor to Phosphodiesterase Through Transducin in Taste Receptor Cells," <i>Nature</i> 376:80-85 (1995)	
	63	Sambrook et al., "Molecular Cloning," 2 nd Ed. Cold Spring Harbor Laboratory Press (1989) (Table of Contents only)	
	64	Songyang et al., "SH2 Domains Recognize Specific Phosphopeptide Sequences," <i>Cell</i> 72:767-788 (1993)	
	65	Takeda et al., "Construction of Chimaeric Processed Immunoglobulin Genes Containing Mouse Variable and Human Constant Region Sequences," <i>Nature</i> 314:452-454 (1985)	
	66	Thompson et al., "Germ Line Transmission and Expression of a Corrected HPRT Gene Produced by Gene Targeting in Embryonic Stem Cells," <i>Cell</i> 56:313-321 (1989)	

Examiner Signature		Date Considered	6-20-05
--------------------	--	-----------------	---------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	09/834,792
				Filing Date	April 13, 2001
				First Named Inventor	Margoiskee
				Group Art Unit	1647
				Examiner Name	Sharon L. Turner
Sheet	6	of	6	Attorney Docket Number	34116/1051

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials [*]	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	67	van der Putten et al., "Efficient Insertion of Genes Into the Mouse Germ Line Via Retroviral Vectors," <i>Proc. Natl. Acad. Sci. USA</i> 82:6148-6152 (1985)	
	68	Ward et al., "Binding Activities of a Repertoire of Single Immunoglobulin Variable Domains Secreted from <i>Escherichia coli</i> ," <i>Nature</i> 341:544-546 (1989)	
	69	Wolff et al., "Comparative Study of Membrane Potential-Sensitive Fluorescent Probes and Their Use in Ion Channel Screening Assays," <i>J. Biomol. Screening</i> 8(5):533-543 (2003)	
	70	Xu et al., "Ion-Channel Assay Technologies: <i>quo vadis?</i> ," <i>Drug Discov. Today</i> 6(24):1278-1287 (2001)	

Examiner Signature		Date Considered	6-20-05
-----------------------	--	--------------------	---------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.